INDEX TO VOLUME 108

Actualistic Ophiolite Provenance: The Cyprus Case [E. Garzanti, S. Andò, and M. Scutellà], 199

Andò, S. *See* Garzanti, E.

Anomalously Low Temperature Orthopyroxene, Spinel, and Sapphirine Occurrences in Metasediments from the Bamble Amphibolite-to-Granulite Facies Transition Zone (South Norway): Possible Evidence for Localized Action of Saline Fluids: A Discussion [P. Hagelia], 243

Anomalously Low Temperature Orthopyroxene, Spinel, and Sapphirine Occurrences in Metasediments from the Bamble Amphibolite-to-Granulite Facies Transition Zone (South Norway): Possible Evidence for Localized Action of Saline Fluids: A Reply [T. G. Nijland, J. L. R. Touret, and D. Visser], 247

Arndt, N. T. *See* Révillon, S.

Associations of Vertebrate Skeletal Concentrations and Discontinuity Surfaces in Terrestrial and Shallow Marine Records: A Test in the Cretaceous of Montana [R. R. Rogers and S. M. Kidwell], 131

Attoh, K. *Contrasting Metamorphic Record of Heat Production Anomalies in the Penokean Orogen of Northern Michigan*, 353

Awramik, S. M. *See* Shapiro, R. S.

Bahlburg, H. *See* Bock, B.

Bock, B., H. Bahlburg, G. Wörner, and U. Zimmermann. *Tracing Crustal Evolution in the Southern Central Andes from Late Precambrian to Permian with Geochemical and Nd and Pb Isotope Data*, 515

Brett, C. E. *See* Ver Straeten, C. A.

Brunner, C. A. *See* Zuffa, G. G.

Buchan, K. L. *See* Ernst, R. E.

Bulge Migration and Pinnacle Reef Development, Devonian Appalachian Foreland Basin [C. A. Ver Straeten and C. E. Brett], 339

Cabral-Cano, E., G. Draper, H. R. Lang, and C. G. A Harrison. *Constraining the Late Mesozoic and Early Tertiary Tectonic Evolution of Southern Mexico: Structure and Deformation History of the Tierra Caliente Region*, 427

Cantagrel, J.-M. *See* Legros, F.

Chauvel, C. *See* Révillon, S.

Cheong, C.-S. *See* Kim, J.-N.

Cho, M. *See* Lee, S. R.

Choi, S.-J. *See* Kim, J.-N.

Chu, H.-T. *See* Hovius, N.

Chung, S.-L., and Z.-X. Li. *Trace Element and Isotope Characteristics of Cenozoic Basalts around the Tanlu Fault with Implications for the Eastern Plate Boundary between North and South China: A Reply*, 743

Coler, D. G., G. L. Wortman, S. D. Samson, J. P. Hibbard, and R. Stern. *U-Pb Geochronologic, Nd Isotopic, and Geochemical Evidence for the Correlation of the Chopawamsic and Milton Terranes, Piedmont Zone, Southern Appalachian Orogen*, 363

A Complex History for the Caribbean Plateau: Petrology, Geochemistry, and Geochronology of the Beata Ridge, South Hispaniola [S. Révillon, E. Hallot, N. T. Arndt, C. Chauvel, and R. A. Duncan], 641

Constraining the Late Mesozoic and Early Tertiary Tectonic Evolution of Southern Mexico: Structure and Deformation History of the Tierra Caliente Region [E. Cabral-Cano, G. Draper, H. R. Lang, and C. G. A Harrison], 427

Contrasting Metamorphic Record of Heat Production Anomalies in the Penokean Orogen of Northern Michigan [K. Attoh], 353

Contribution to the Theory of Scarpland Development from Observations in Central Queensland, Australia [R. W. Young and R. A. L. Wray], 705

Cousens, B. L. *Geochemistry of the Archean Kam Group, Yellowknife Greenstone Belt, Slave Province, Canada*, 181

Crame, J. A. *See* McArthur, J. M.

Curtis, M. L. *See* Randall, D. E.

Dalziel, I. W. D., S. Mosher, and L. M. Gahagan. *Laurentia-Kalahari Collision and the Assembly of Rodinia*, 499

David, J. *See* Malka, E.

Definition of Late Cretaceous Stage Boundaries in Antarctica Using Strontium Isotope Stratigraphy [J. M. McArthur, J. A. Crame, and M. F. Thirlwall], 623

Devouard, B. *See* Legros, F.

Diagenesis of the Purington Shale in the Illinois Basin and Implications for the Diagenetic State of Sedimentary Rocks of Shallow Paleozoic Basins [D. M. Moore], 553

Draper, G. *See* Cabral-Cano, E.

Duncan, R. A. *See* Révillon, S.

Dunlap, W. J. *See* Weinberg, R. F.

Early Mesozoic (?Triassic) Landscapes in Australia: Evidence, Argument, and Implications [C. R. Twidale], 537

Early Proterozoic Granulites in Central Korea: Tectonic Correlation with Chinese Cratons [S. R. Lee, M. Cho, K. Yi, and R. A. Stern], 729

Ernst, R. E., K. L. Buchan, M. A. Hamilton, A. V. Okrugin, and M. D. Tomshin. *Integrated Paleomagnetism and U-Pb Geochronology of Mafic Dikes of the Eastern Anabar Shield Region, Siberia: Implications for Mesoproterozoic Paleolatitude of Siberia and Comparison with Laurentia*, 381

Eusden, J. D., Jr., C. A. Guzofski, A. C. Robinson, and R. D. Tucker. *Timing of the Acadian Orogeny in Northern New Hampshire*, 219

Evidence for Differential Unroofing in the Adirondacks Mountains, New York State, Determined by Apatite Fission Track Thermochronology [M. K. Roden-Tice, S. J. Tice, and I. S. Schofield], 155

Fyfe, W. S. *See* Léveillé, R. J.

Gahagan, L. M. *See* Dalziel, I. W. D.

Garzanti, E., S. Andò, and M. Scutellà. *Actualistic Ophiolite Provenance: The Cyprus Case*, 199

Gasparik, T. *An Internally Consistent Thermodynamic Model for the System CaO-MgO-Al_2O_3-SiO_2 Derived Primarily from Phase Equilibrium Data*, 103

Geochemistry of the Archean Kam Group, Yellowknife Greenstone Belt, Slave Province, Canada [B. L. Cousens], 181

Gibson, D. L. *See* O'Sullivan, P. B.

Growth and Deformation of the Ladakh Batholith, Northwest Himalayas: Implications for Timing of Continental Collision and Origin of Calc-Alkaline Batholiths [R. J. Weinberg and W. J. Dunlap], 303

Guzofski, C. A. *See* Eusden, J. D., Jr.

Hagelia, P. *Anomalously Low Temperature Orthopyroxene, Spinel, and Sapphirine Occurrences in Metasediments from the Bamble Amphibolite-to-Granulite Facies Transition Zone (South Norway): Possible Evidence for Localized Action of Saline Fluids: A Discussion*, 243

Hallot, E. *See* Révillon, S.

Hamilton, M. A. *See* Ernst, R. E.; Murphy, J. B.

Harley, S. L. *See* Nandakumar, V.
Harrison, C. G. A. *See* Cabral-Cano, E.
Hartman, J. H. *See* Rogers, R. R.
Hermanns, R. L., M. H. Trauth, S. Niedermann, M. McWilliams, and M. R. Strecker. *Tephrochronologic Constraints on Temporal Distribution of Large Landslides in Northwest Argentina*, 35
Hibbard, J. P. *See* Wortman, G. L.; Coler, D. G.
Hovius, N., C. P. Stark, H.-T. Chu, and J.-C. Lin. *Supply and Removal of Sediment in a Landslide-Dominated Mountain Belt: Central Range, Taiwan*, 73
Integrated Paleomagnetism and U-Pb Geochronology of Mafic Dikes of the Eastern Anabar Shield Region, Siberia: Implications for Mesoproterozoic Paleolatitude of Siberia and Comparison with Laurentia [R. E. Ernst, K. L. Buchan, M. A. Hamilton, A. V. Okrugin, and M. D. Tomshin], 381
An Internally Consistent Thermodynamic Model for the System CaO-MgO-Al_2O_3-SiO_2 Derived Primarily from Phase Equilibrium Data [T. Gasparik], 103
Johnson, S. E. *See* Tate, M. C.
Kidwell, S. M. *See* Rogers, R. R.
Kim, J.-N., J.-H. Ree, S.-T. Kwon, Y. Park, S.-J. Choi, and C.-S. Cheong. *The Kyonggi Shear Zone of the Central Korean Peninsula: Late Orogenic Imprint of the North and South China Collision*, 469
Kjerfve, B. *See* Restrepo, J. D.
Kohn, B. P. *See* O'Sullivan, P. B.
Krause, D. W. *See* Rogers, R. R.
Kwon, S.-T. *See* Kim, J.-N.
The Kyonggi Shear Zone of the Central Korean Peninsula: Late Orogenic Imprint of the North and South China Collision [J.-N. Kim, J.-H. Ree, S.-T. Kwon, Y. Park, S.-J. Choi, and C.-S. Cheong], 469
Lang, H. R. *See* Cabral-Cano, E.
Laurentia-Kalahari Collision and the Assembly of Rodinia [I. W. D. Dalziel, S. Mosher, and L. M. Gahagan], 499
Lee, S. R., M. Cho, K. Yi, and R. A. Stern. *Early Proterozoic Granulites in Central Korea: Tectonic Correlation with Chinese Cratons*, 729
Legros, F., J.-M. Cantagrel, and B. Devouard. *Pseudotachylyte (Frictionite) at the Base of the Arequipa Volcanic Landslide Deposit (Peru): Implications for Emplacement Mechanisms*, 601
Léveillé, R. J., W. S. Fyfe, and F. J. Longstaffe. *Unusual Secondary Ca-Mg-Carbonate-Kerolite Deposits in Basaltic Caves, Kauai, Hawaii*, 613
Li, Z.-X. *See* Chung, S.-L.
Lin, J.-C. *See* Hovius, N.
Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data [P. B. O'Sullivan, D. L. Gibson, B. P. Kohn, B. Pillans, and C. F. Pain], 1
Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data: A Discussion [G. Taylor], 749
Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data: A Reply [P. B. O'Sullivan, B. Pillans, D. L. Gibson, B. P. Kohn, and C. F. Pain], 750
Longstaffe, F. J. *See* Léveillé, R. J.
A Lost Realm in the Internal Domains of the Betic-Rif Orogen (Spain and Morocco): Evidence from Conglomerates and Consequences for Alpine Geodynamic Evolution [A. Martín-Algarra, A. Messina, V. Perrone, S. Russo, A. Maate, and M. Martín-Martín], 447
Maate, A. *See* Martín-Algarra, A.
Major Element, REE, and Other Trae Element Behavior in Amphibolite Weathering under Semiarid Conditions in Southern India [A. Sharma and V. Rajamani], 487
Malka, E., R. K. Stevenson, and J. David. *Sm-Nd Geochemistry and U-Pb Geochronology of the Mont Rigaud Stock, Quebec, Canada: A Late Magmatic Event Associated with the Formation of the Iapetus Rift*, 569
Martín-Algarra, A., A. Messina, V. Perrone, S. Russo, A. Maate, and M. Martín-Martín. *A Lost Realm in the Internal Domains of the Betic-Rif Orogen (Spain and Morocco): Evidence from Conglomerates and Consequences for Alpine Geodynamic Evolution*, 447
Martín-Martín, M. *See* Martín-Algarra, A.
McArthur, J. M., J. A. Crame, and M. F. Thirlwall. *Definition of Late Cretaceous Stage Boundaries in Antarctica Using Strontium Isotope Stratigraphy*, 623
McBirney, A. *See* Sigurdsson, Haraldur
McWilliams, M. *See* Hermanns, Reginald L.
Messina, A. *See* Martín-Algarra, A.
Microbialite Morphostratigraphy as a Tool for Correlating Late Cambrian–Early Ordovician Sequences [R. S. Shapiro and S. M. Awramik], 171
Millar, I. L. *See* Randall, D. E.
Moore, D. M. *Diagenesis of the Purington Shale in the Illinois Basin and Implications for the Diagenetic State of Sedimentary Rocks of Shallow Paleozoic Basins*, 553
Mosher, S. *See* Dalziel, I. W. D.
Münker, C. *Pb-Nd Isotopes Indicate the Origin of Island Arc Terranes in the Early Paleozoic Pacific*, 233; *see also* Wombacher, F.
Murphy, J. B., and M. A. Hamilton. *Orogenesis and Basin Development: U-Pb Detrital Zircon Age Constraints on Evolution of the Late Paleozoic St. Marys Basin, Central Mainland Nova Scotia*, 53
Nandakumar, V., and S. L. Harley. *A Reappraisal of the Pressure-Temperature Path of Granulites from the Kerala Khondalite Belt, Southern India*, 687
A New Late Middle Cambrian Paleomagnetic Pole for the Ellsworth Mountains, Antarctica [D. E. Randall, M. L. Curtis, and I. L. Millar], 403
Niedermann, S. *See* Hermanns, R. L.
Nijland, T. G., J. L. R. Touret, and D. Visser. *Anomalously Low Temperature Orthopyroxene, Spinel, and Sapphirine Occurrences in Metasediments from the Bamble Amphibolite-to-Granulite Facies Transition Zone (South Norway): Possible Evidence for Localized Action of Saline Fluids: A Reply*, 247
Normark, W. R. *See* Zuffa, G. G.
Okrugin, A. V. *See* Ernst, R. E.
Orogenesis and Basin Development: U-Pb Detrital Zircon Age Constraints on Evolution of the Late Paleozoic St. Marys Basin, Central Mainland Nova Scotia [J. B. Murphy and M. A. Hamilton], 53
O'Sullivan, P. B., D. L. Gibson, B. P. Kohn, B. Pillans, and C. F. Pain. *Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data*, 1
———. *Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data: A Reply*, 750
Pain, C. F. *See* O'Sullivan, P. B.
Park, Y. *See* Kim, J.-N.
Pb, Nd, and Sr Isotopes and REE Systematics of Cambrian Sediments from New Zealand: Implications for the Reconstruction of the Early Paleozoic Gondwana Margin

along Australia and Antarctica [F. Wombacher and C. Münker], 663
Pb-Nd Isotopes Indicate the Origin of Island Arc Terranes in the Early Paleozoic Pacific [C. Münker], 233
Perrone, V. *See* Martín-Algarra, A.
Phillips, J. D. *Signatures of Divergence and Self-Organization in Soils and Weathering Profiles*, 91
Pillans, B. *See* O'Sullivan, P. B.
Precise U-Pb Zircon Constraints on the Earliest Magmatic History of the Carolina Terrane [G. L. Wortman, S. D. Samson, and J. P. Hibbard], 321
Pseudotachylyte (Frictionite) at the Base of the Arequipa Volcanic Landslide Deposit (Peru): Implications for Emplacement Mechanisms [F. Legros, J.-M. Cantagrel, and B. Devouard], 601
Rajamani, V. *See* Sharma, A.
Randall, D. E., M. L. Curtis, and I. L. Millar. *A New Late Middle Cambrian Paleomagnetic Pole for the Ellsworth Mountains, Antarctica*, 403
A Reappraisal of the Pressure-Temperature Path of Granulites from the Kerala Khondalite Belt, Southern India [V. Nandakumar and S. L. Harley], 687
Ree, J.-H. *See* Kim, J.-N.
Restrepo, J. D., and B. Kjerfve. *Water Discharge and Sediment Load from the Western Slopes of the Colombian Andes with Focus on Rio San Juan*, 17
Révillon, S., E. Hallot, N. T. Arndt, C. Chauvel, and R. A. Duncan. *A Complex History for the Caribbean Plateau: Petrology, Geochemistry, and Geochronology of the Beata Ridge, South Hispaniola*, 641
Robinson, A. C. *See* Eusden, J. D., Jr.
Roden-Tice, M. K., S. J. Tice, and I. S. Schofield. *Evidence for Differential Unroofing in the Adirondack Mountains, New York State, Determined by Apatite Fission-Track Thermochronology*, 155
Rogers, R. R., and S. M. Kidwell. *Associations of Vertebrate Skeletal Concentrations and Discontinuity Surfaces in Terrestrial and Shallow Marine Records: A Test in the Cretaceous of Montana*, 131
Rogers, R. R., J. H. Hartman, and D. W. Krause. *Stratigraphic Analysis of Upper Cretaceous Rocks in the Mahajanga Basin, Northwestern Madagascar: Implications for Ancient and Modern Faunas*, 275
Rosenthal, G. M. *See* Seddon, G.
Russo, S. *See* Martín-Algarra, A.
Samson, S. D. *See* Wortman, G. L.; Coler, D. G.
Satish-Kumar, M. *Ultrahigh-Temperature Metamorphism in Madurai Granulites, Southern India: Evidence from Carbon Isotope Thermometry*, 479
Schofield, I. S. *See* Roden-Tice, M. K.
Scutellà, M. *See* Garzanti, E.
Seddons, G., author of Landprints: Reflections on Place and Landscape. *Review* by G. M. Rosenthal, 497
Serra, F. *See* Zuffa, G. G.
Shapiro, R. S., and S. M. Awramik. *Microbialite Morphostratigraphy as a Tool for Correlating Late Cambrian–Early Ordovician Sequences*, 171
Sharma, A., and V. Rajamani. *Major Element, REE, and Other Trace Element Behavior in Amphibolite Weathering under Semiarid Conditions in Southern India*, 487
Signatures of Divergence and Self-Organization in Soils and Weathering Profiles [J. D. Phillips], 91
Sigurdsson, H., author of Melting the Earth: The History of Ideas on Volcanic Eruptions. *Review* by A. McBirney, 251
Sm-Nd Geochemistry and U-Pb Geochronology of the Mont Rigaud Stock, Quebec, Canada: A Late Magmatic Event Associated with the Formation of the Iapetus Rift [E. Malka, R. K. Stevenson, and J. David], 569
Stark, C. P. *See* Hovius, N.
Stern, R. A. *See* Coler, D. G.; Lee, S. R.
Stevenson, R. K. *See* Malka, E.
Stratigraphic Analysis of Upper Cretaceous Rocks in the Mahajanga Basin, Northwestern Madagascar: Implications for Ancient and Modern Faunas [R. R. Rogers, J. H. Hartman, and D. W. Krause], 275
Strecker, M. R. *See* Hermanns, R. L.
Substrate Influences on Step-Pool Sequences in the Christopher Creek Drainage, Arizona [E. E. Wohl], 121
Subvolcanic and Deep-Crustal Tonalite Genesis beneath the Mexican Peninsular Ranges [M. C. Tate and S. E. Johnson], 721
Supply and Removal of Sediment in a Landslide-Dominated Mountain Belt: Central Range, Taiwan [N. Hovius, C. P. Stark, Chu H.-T., and Lin J.-C.], 73
Tate, M. C., and S. E. Johnson. *Subvolcanic and Deep-Crustal Tonalite Genesis beneath the Mexican Peninsular Ranges*, 721
Taylor, G. *Long-Term Landscape Evolution of the Northparkes Region of the Lachlan Fold Belt, Australia: Constraints from Fission Track and Paleomagnetic Data: A Discussion*, 749
Tephrochronologic Constraints on Temporal Distribution of Large Landslides in Northwest Argentina [R. L. Hermanns, M. H. Trauth, S. Niedermann, M. McWilliams, and M. R. Strecker], 35
Testing the Applicability of Strontium Isotope Stratigraphy in Marine to Deltaic Pleistocene Deposits: An Example from the Lamone River Valley (Northern Italy) [S. C. Vaiani], 585
Thirlwall, M. F. *See* McArthur, J. M.
Tice, S. J. *See* Roden-Tice, M. K.
Timing of the Acadian Orogeny in Northern New Hampshire [J. D. Eusden, Jr., C. A. Guzofski, A. C. Robinson, and R. D. Tucker], 219
Tomshin, M. D. *See* Ernst, R. E.
Touret, J. L. R. *See* Nijland, T. G.
Trace Element and Isotope Characteristics of Cenozoic Basalts around the Tanlu Fault with Implications for the Eastern Plate Boundary between North and South China: A Reply [S.-L. Chung and Z.-X. Li], 743
Trace Element and Isotope Characteristics of Cenozoic Basalts around the Tanlu Fault with Implications for the Eastern Plate Boundary between North and South China: An Extended Discussion [K. J. Zhang], 739
Tracing Crustal Evolution in the Southern Central Andes from Late Precambrian to Permian with Geochemical and Nd and Pb Isotope Data [B. Bock, H. Bahlburg, G. Wörner, and U. Zimmermann], 515
Trauth, M. H. *See* Hermanns, R. L.
Tucker, R. D. *See* Eusden, J. D., Jr.
Turbidite Megabeds in an Oceanic Rift Valley Recording Jökulhlaups of Late Pleistocene Glacial Lakes of the Western United States [G. G. Zuffa, W. R. Normark, F. Serra, and C. A. Brunner], 253
Twidale, C. R. *Early Mesozoic (?Triassic) Landscapes in Australia: Evidence, Argument, and Implications*, 537
U-Pb Geochronologic, Nd Isotopic, and Geochemical Evidence for the Correlation of the Chopawamsic and Milton Terranes, Piedmont Zone, Southern Appalachian Orogen [D. G. Coler, G. L. Wortman, S. D. Samson, J. P. Hibbard, and R. Stern], 363
Ultrahigh-Temperature Metamorphism in Madurai Granulites, Southern India: Evidence from Carbon Isotope Thermometry [M. Satish-Kumar], 479

Unusual Secondary Ca-Mg-Carbonate-Kerolite Deposits in Basaltic Caves, Kauai, Hawaii [R. J. Léveillé, W. S. Fyfe, and F. J. Longstaffe], 613

Vaiani, S. C. *Testing the Applicability of Strontium Isotope Stratigraphy in Marine to Deltaic Pleistocene Deposits: An Example from the Lamone River Valley (Northern Italy)*, 585

Ver Straeten, C. A., and C. E. Brett. *Bulge Migration and Pinnacle Reef Development, Devonian Appalachian Foreland Basin*, 339

Visser, D. *See* Nijland, T. G.

Water Discharge and Sediment Load from the Western Slopes of the Colombian Andes with Focus on Rio San Juan [J. D. Restrepo and B. Kjerfve], 17

Weinberg, R. F., and W. J. Dunlap. *Growth and Deformation of the Ladakh Batholith, Northwest Himalayas: Implications for Timing of Continental Collision and Origin of Calc-Alkaline Batholiths*, 303

Wohl, E. E. *Substrate Influences on Step-Pool Sequences in the Christopher Creek Drainage, Arizona*, 121

Wombacher, F., and C. Münker. *Pb, Nd, and Sr Isotopes and REE Systematics of Cambrian Sediments from New Zealand: Implications for the Reconstruction of the Early Paleozoic Gondwana Margin along Australia and Antarctica*, 663

Wörner, G. *See* Bock, B.

Wortman, G. L., S. D. Samson, and J. P. Hibbard. *Precise U-Pb Zircon Constraints on the Earliest Magmatic History of the Carolina Terrane*, 321; *see also* Coler, D. G.

Wray, R. A. L. *See* Young, R. W.

Yi, K. *See* Lee, S. R.

Young, R. W., and R. A. L. Wray. *Contribution to the Theory of Scarpland Development from Observations in Central Queensland, Australia*, 705

Zhang, K. J. *Trace Element and Isotope Characteristics of Cenozoic Basalts around the Tanlu Fault with Implications for the Eastern Plate Boundary between North and South China: An Extended Discussion*, 739

Zimmermann, U. *See* Bock, B.

Zuffa, G. G., W. R. Normark, F. Serra, and C. A. Brunner. *Turbidite Megabeds in an Oceanic Rift Valley Recording Jökulhlaups of Late Pleistocene Glacial Lakes of the Western United States*, 253